

Surface Mount Fuses

Thin-Film Surface Mount

0603 Very Fast-Acting Fuse 431 Series



• For new designs please use the 434 or 467 Series products.

ELECTRICAL CHARACTERISTICS:

| % of Ampere Rating | Opening Time at 25°C |
|--------------------|-----------------------------|
| 100% | 4 hours, Minimum |
| 200% | 5 seconds, Maximum |
| 300% | 0.2 seconds, Maximum |

AGENCY APPROVALS: Recognized under the Components Program of Underwriters Laboratories and Certified by CSA.

AGENCY FILE NUMBERS: UL E10480, CSA LR 29862.

INTERRUPTING RATINGS:

| | |
|--------|--------------------------|
| .25–1A | 50 amperes at 32 VAC/VDC |
| 1–5A | 35 amperes at 32 VAC/VDC |

ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature: –55°C to 90°C. Consult temperature rerating chart on page 4. For operation above 90°C contact Littelfuse.

Vibration: Withstands 10-55 HZ per MIL-STD-202F, Method 201A and 10-2000 HZ at 20 G's per MIL-STD-202F, Method 204D, Condition D.

Insulation Resistance (After Opening):

Greater than 500,000 ohms.

Resistance To Soldering Heat: Withstands 60 seconds above 200°C up to 260°C, maximum.

Thermal Shock: Withstands 5 cycles of –50°C to 125°C.

PHYSICAL SPECIFICATIONS:

Materials: Body: Epoxy Substrate
 Terminations: Copper/Nickel/Tin-Lead (95/5)
 Cover Coat: Conformal Coating

Soldering Parameters:

Reflow Solder— 260°C, 30 seconds maximum

PACKAGING SPECIFICATIONS: 8mm Tape and Reel per EIA-RS481-1 (IEC 286, part 3); 5,000 per reel, add packaging suffix, NR.

PATENTED

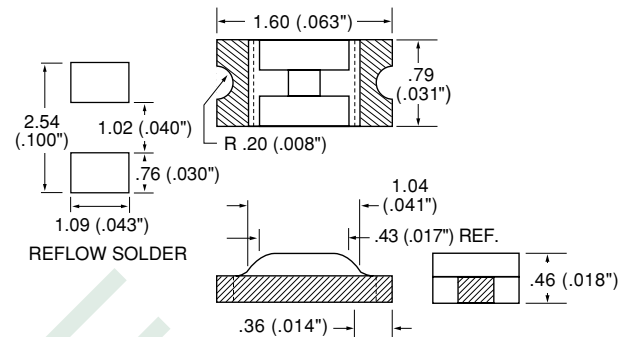
ORDERING INFORMATION:

| For New Designs Use 434 or 467 Series. | | | | |
|--|---------------|----------------|--|----------------------------------|
| Catalog Number | Ampere Rating | Voltage Rating | Nominal Resistance Cold Ohm ¹ | Melting Pt (A ² Sec.) |
| 431.250 | 0.25 | 32 | 0.375 | 0.0030 |
| 431.375 | 0.375 | 32 | 0.265 | 0.0053 |
| 431.500 | 0.5 | 32 | 0.193 | 0.0087 |
| 431.750 | 0.75 | 32 | 0.114 | 0.0171 |
| 431.001 | 1 | 32 | 0.072 | 0.0210 |
| 431.01.5 | 1.5 | 32 | 0.048 | 0.0526 |
| 431.002 | 2 | 32 | 0.036 | 0.104 |
| 431.02.5 | 2.5 | 32 | 0.028 | 0.175 |
| 431.003 | 3 | 32 | 0.023 | 0.198 |
| 431.03.5 | 3.5 | 32 | 0.019 | 0.265 |
| 431.004 | 4 | 32 | 0.017 | 0.352 |
| 431.005 | 5 | 32 | 0.013 | 1.600 |

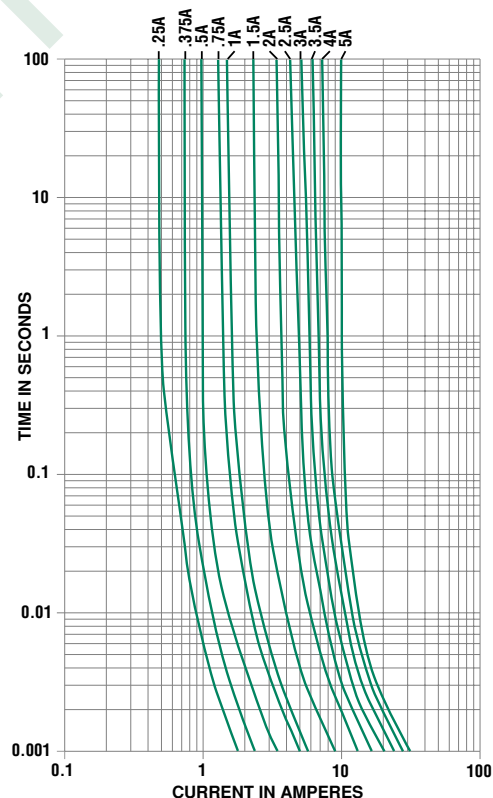
¹Measured at 10% of rated current, 25°C.



Reference Dimensions:



Average Time Current Curves



10
SURFACE MOUNT FUSES